# SimpleLine II

## Surgical / Prosthesis Manual

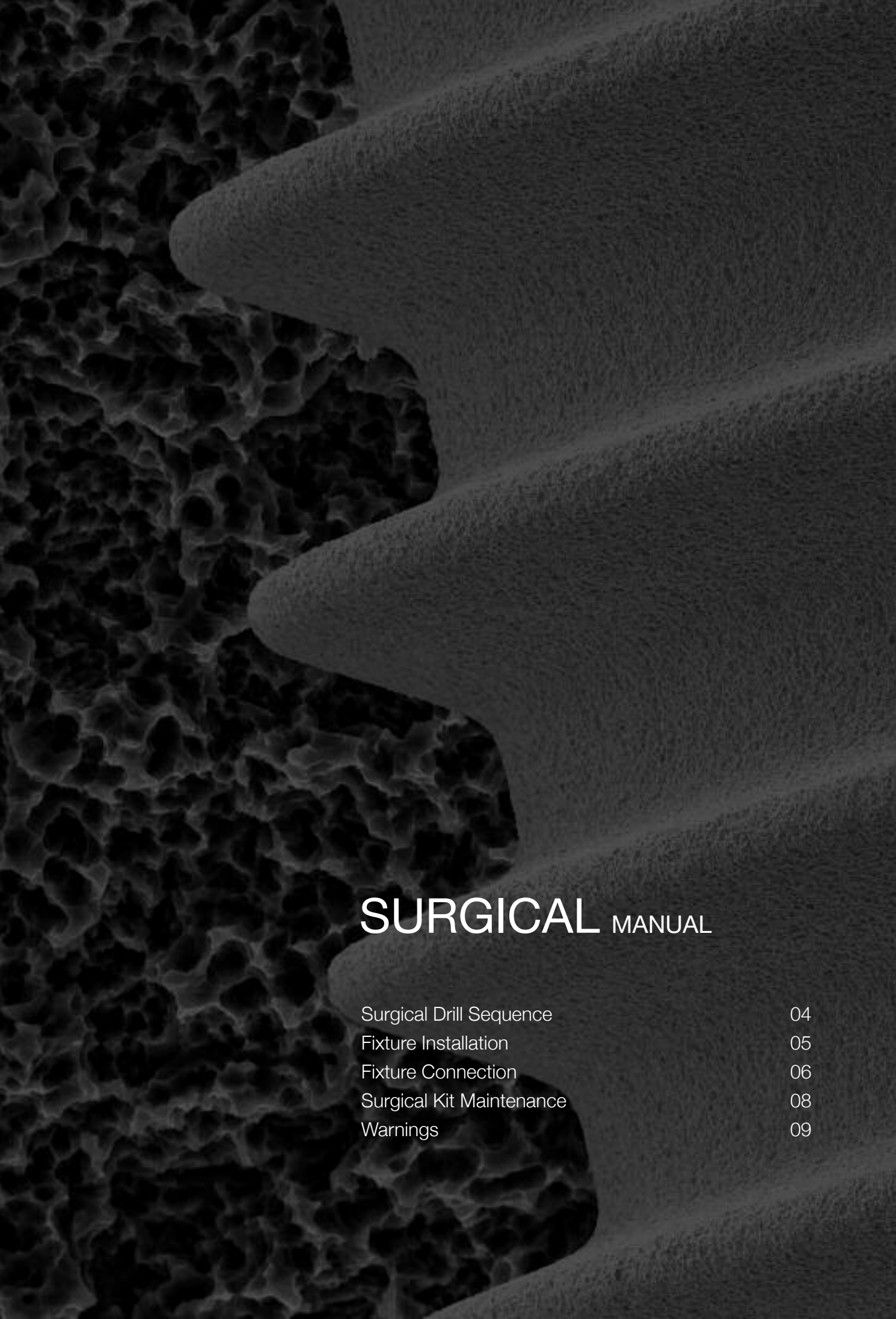
Dentium

For Dentists By Dentists

**SimpleLine II**

*A New Choice*

*For the Customer*



# SURGICAL MANUAL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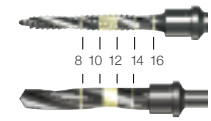
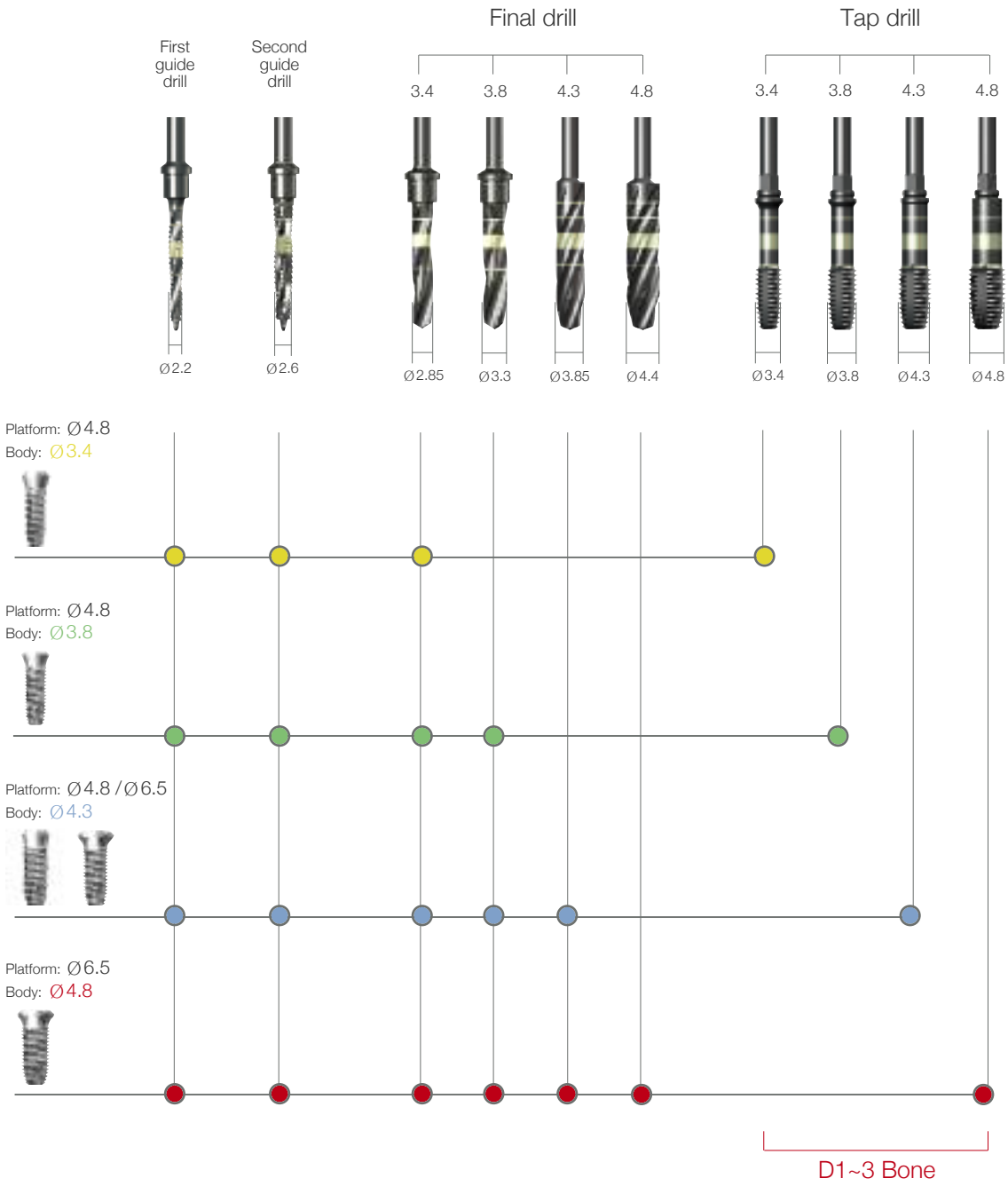
# Surgical Drill Sequence



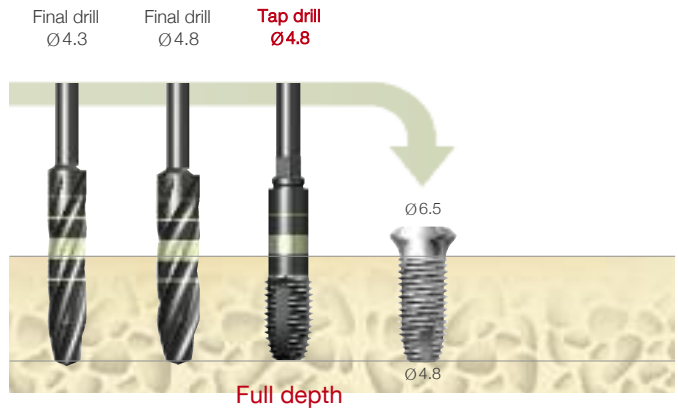



# Fixture Installation

- **Guide & Final Drill:** 800~1,200rpm / 30~45N·cm
- **Tap Drill:** 20~60rpm / 30~45N·cm

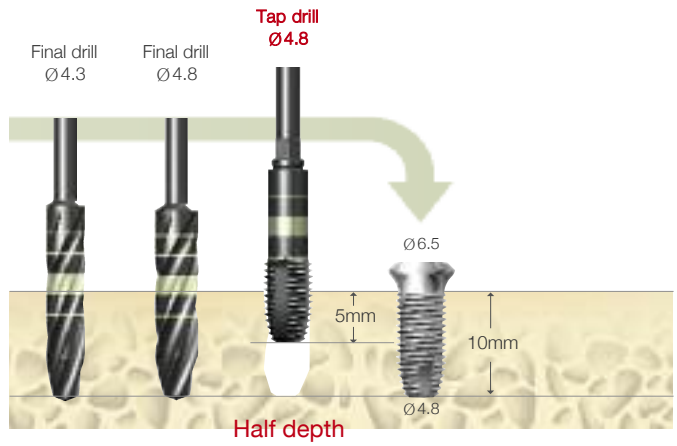
## D1 Bone

**Platform:** Ø6.5 / **Body:** Ø4.8



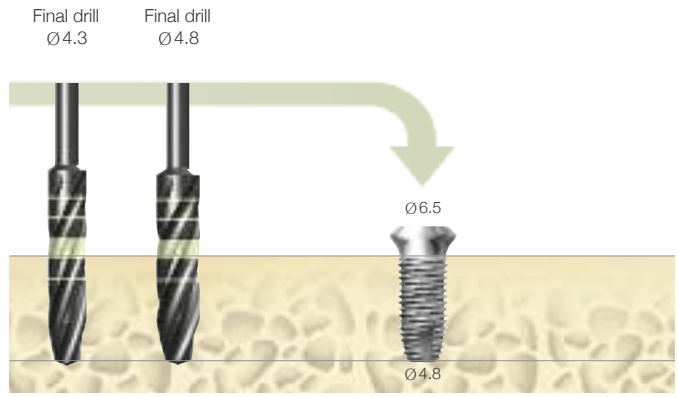

## D2, 3 Bone

**Platform:** Ø6.5 / **Body:** Ø4.8

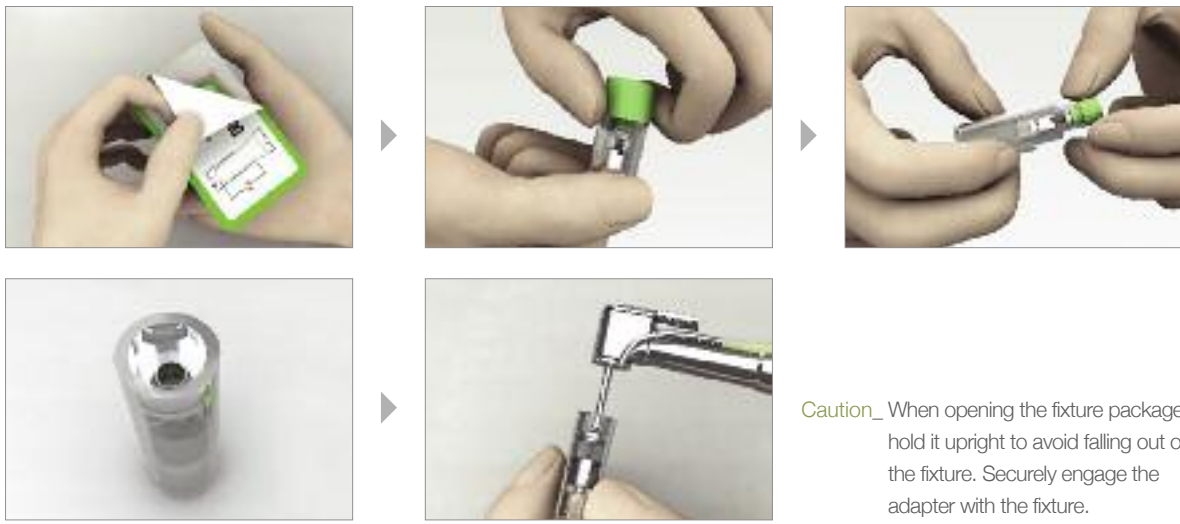



## D4 Bone

**Platform:** Ø6.5 / **Body:** Ø4.8



# Fixture Connection



Caution_ When opening the fixture package, hold it upright to avoid falling out of the fixture. Securely engage the adapter with the fixture.

By hand-piece
20rpm / 35N·cm

By ratchet

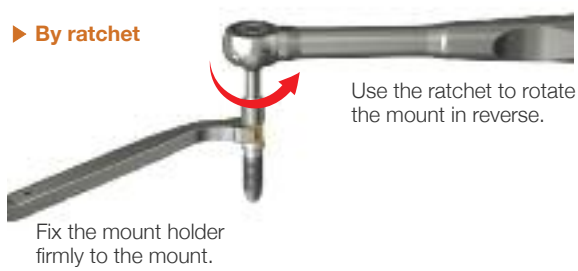
## Directions when Using the Hand-piece / Ratchet Adapter

The ratchet adapter and the fixture interal octa must be firmly connected together.

## Removal of the Fixture Mount

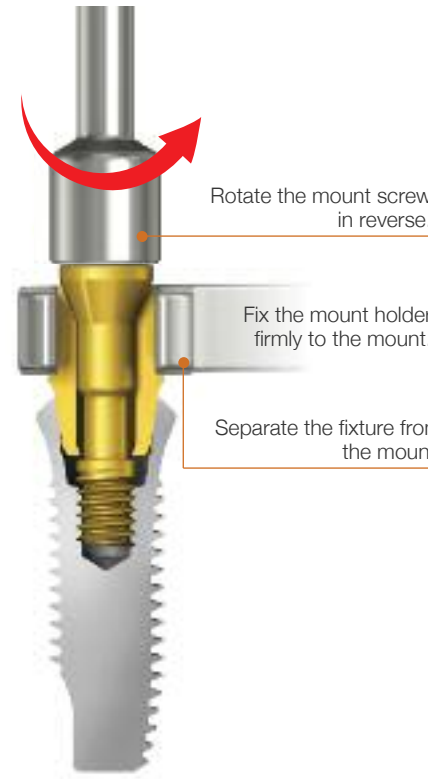
### By handpiece

### By ratchet




* In case the power of motor is insufficient to rotate the mount in reverse

## Removal Mechanism of the Fixture Mount



# Surgical Kit Maintenance

## Sterilization and Instrument Care Procedures

- Please follow legal regulations, as well as hygienic guidelines to prevent contamination and infection.
- Please remember that you are responsible for the maintenance and sterilization of your medical / dental products/devices. It is important to use and follow proper cleaning, disinfection and sterilization procedures.
- It is also important to follow the manufacture's recommendation on the usage of the drills..
  Please keep a log as to the number of times the drills are used.
- Drills are used per implant placed not per patient. Bone density determines the longevity of the drills.
- Replace white and red o-rings on the adapters and the hex drivers, if worn and dried out.
- Drills should be considered for replacement after about 40 uses based on bone density.

**01** All instruments, immediately after use, must be pre-soaked for a few minutes in a germicidal bath to loosen and prevent debris from attaching to instruments. Do not soak over-night.
**02** Scrub with a soft brush to remove any debris.
**03** For internal irrigation drills use a reamer or small gauge needle to cleanout drill internally.
**04** If using an ultrasonic cleaner, wrap drills in a 2 x 2 gauze to prevent the drills from rubbing against each other.
**05** Rinse thoroughly under warm water.
**06** Clean all instrument trays with a germicidal cleaner prior to replacing instruments in kit.
**07** Dry completely and place back into kit.
**08** Always check for damage or corrosion after rinsing and drying.
**09** Seal the tray in a sterilization pouch.
**10** Sterilize using a steam autoclave at 121°C / 250°F for 30 minutes or refer to manufacture's recommendations.
**11** Store in a dry area at room temperature.

## Maintenance Period for Surgical Drills

**All surgical drills should be replaced after approximately 40 uses based on bone density**

**Guide Drill** (First, Second)
800~1200rpm, 30~45N·cm with Irrigation

**Final Drill**
800~1200rpm, 30~45N·cm with Irrigation

**Tap Drill**
20~30rpm, 30~45N·cm with Irrigation

# Warnings

## Warnings

**Dental implant surgery and restoration involve complex dental procedures. Appropriate and adequate training in proper technique is strongly recommended prior to use.**

- Improper medical examination and / or treatment plan can result in implant failure and / or loss of supportive bone.
- Improper initial stability and / or excessive occlusal forces during healing period may lead to osseointergration failure.
- Excessive insertion torque may lead to a mechanical failure or a implant biologic failure due to bone compression and necrosis.
- When forces or loads are greater than its design, implant or abutment fracture could occur. Therefore clinicians should make careful decisions in regards to clinical treatment planning to minimize the risk of fracture. Appropriate implant quantity, occlusal interface and a nightguard are essential. Potential excessive loading conditions may include the following:

**01** Inadequate number of implants are placed.
**02** Implant width and / or length are inappropriate for a treatment site.
**03** Prosthesis which has excessive cantilever length due to inadequate biomechanical design.
**04** Continuous occlusal force may be generated by incomplete connection between implant and abutment and / or abutment screw loosening.
**05** Direct casting abutment angles are greater than 30° from the vertical axis of the implant. Angled abutment is excessively milled.
**06** Occlusal interferences causing excessive lateral forces
**07** Patient parafunctions such as bruxism
**08** Inadequate dental laboratory casting procedures
**09** Improper prosthesis fit
**10** Trauma from patient habits or accidents
**11** Excessive marginal bone loss caused by inadequate bone width and / or advanced periimplantitis

# PROSTHESIS MANUAL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# Types of Abutment

**One-Piece** | **Two-Pieces**

Solid Abutment

Octa

Dual Abutment

Octa Non-Octa

SCA Abutment

Screw Abutment

Octa

Dual Milling Abutment

15° 25°

Angled Abutment

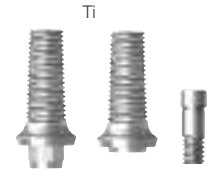
Octa Non-Octa

Direct-Casting Abutment

Cylinder

Octa Non-Octa

Metal-Casting Abutment



Ti

Octa Non-Octa

Plastic

Octa Non-Octa

Temporary Abutment

**Abutment Level** | **Fixture Level**

Positioner

Ball

Magnetic

**Overdenture**

- Dual Abutment
- Solid Abutment
- SCA Abutment

Abutment level

- Dual Abutment
- SCA Abutment
- Dual Milling Abutment
- Angled Abutment (15˚ / 25˚)
- Direct-Casting Abutment
- Metal-Casting Abutment
- Temporary Abutment

Fixture level

- Screw Abutment

Screw retained (Abutment level)

- Positioner
- Ball
- Magnetic

For denture use

# Prosthetic Procedure 1

Impression Technique and Restoration Selection

## Solid / Dual / SCA Abutment

### Abutment Level Impression

**Closed** Tray Technique

**Solid Abutment**
Ø4.8 / Ø6.5

**Dual Abutment**
Octa Ø4.8 / Ø6.5

**SCA Abutment**
Octa / Non-octa Ø4.8 / Ø6.5

**Impression Coping**
Transfer (Snap on) Ø4.8 / Ø6.5

**Impression Coping**
Transfer (Snap on) Ø5.5 / Ø6.5

**Analog**
Ø4.8 / Ø6.5

**Analog**
Ø5.5 / Ø6.5

### Burn-out Cylinder

**Single**
Non-rotational
Ø4.8 / Ø6.5

**Bridge**
Rotational
Ø4.8 / Ø6.5

**Single**
Non-rotational
Ø5.5 / Ø6.5

**Bridge**
Rotational
Ø5.5 / Ø6.5

### Modification

### Cemented Restoration

# Abutment Level- Solid / Dual Abutment

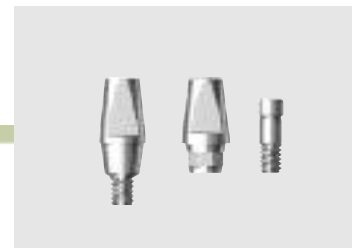
[Multiple Units]

## Clinical Procedure

| Healing Abutment | Solid Abutment or Dual Abutment | Abutment Level Impression | Provisional Restoration with or without Comfort Cap | Comfort Cap |
|---|---|---|---|---|

### Chairside

Fixture installation.



Choose solid abutment or dual abutment.

Tighten the abutment with 25~30N·cm and retighten it after 15 minutes.

Affix the impression coping on the abutment.

Apply the impression material.

Take the impression.

Image of the set final impression with impression coping.

Place comfort cap over the abutment.

# Abutment Level- Solid / Dual Abutment

[Multiple Units]

## Laboratory Procedure

Lab Analog Connection | Cylinder | Crown Wax-up | Final Restoration Cementation Type

### Lab Side

Insert analogs into the embedded impression coping.

Make sure the analogs are securely locked into the impression coping (line up the flat side of analog to the flat side of the coping).

Soft tissue modeling.

Create the master model.

Snap on the burn-out cylinders securely onto the analogs.

Cut the cylinder after measuring proper height based on the proximity of the opposing teeth.

Prepare for wax-up by affixing the plastic bar.

Completion of wax-up.

Produce the metal framework.

# Abutment Level- Solid / Dual Abutment

[Multiple Units]

Shave off the extended margin by using the rubber wheel.

Metal framework and reamer.

Use the reamer to eliminate the “Lip” created by the "snap-on" mechanism.

Metal Framework after the removal of the "Lip".

Metal framework.

Porcelain build-up.

**[Only Dual Abutment]**

**SCRP :** Once an access hole has been created, it could be converted to a SCRP (Screw & Cement Retained Prosthesis).

Final prosthesis.

Create an access hole when the burn-out cylinder is used for the wax-up.

Image of the extended margin around the metal framework.

Shave off the extended margin by using the rubber wheel.

Metal framework and reamer.

Use the reamer to eliminate the “Lip” created by the "snap-on" mechanism.

Metal framework after the removal of the "Lip".

Metal framework.

Final prosthesis.

# Abutment Level- SCA Abutment

[Multiple Units]

## Clinical Procedure

Healing Abutment | SCA Abutment | Abutment Level Impression | Provisional Restoration with or without Comfort Cap | Comfort Cap

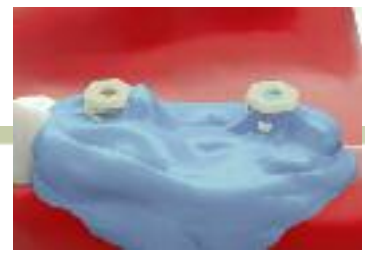
### Chairside

Fixture installation.

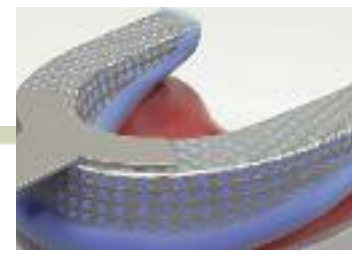
Choose SCA abutment (Octa / Non-octa).

Tighten the abutment with 25~30N·cm and retighten it after 15 minutes.

Affix the impression coping on the abutment.



Apply the impression material.



Take the impression.

Image of the set final impression with impression coping.

Place comfort cap over the abutment.

# Abutment Level- SCA Abutment

[Multiple Units]

## Laboratory Procedure

Lab Analog Connection | Cylinder | Crown Wax-up | Final Restoration Cementation Type

### Lab Side

Insert analogs into the embedded impression coping.

Make sure the analogs are securely locked into the impression coping (line up the flat side of analog to the flat side of the coping).

Soft tissue modeling.

Create the master model.

Snap on the burn-out cylinders securely onto the analogs.

Cut the cylinder after measuring proper height based on the proximity of the opposing teeth.

Prepare for wax-up by affixing the plastic bar.

Completion of wax-up.

Produce the metal framework.

# Abutment Level- SCA Abutment

[Multiple Units]

Shave off the extended margin by using the rubber wheel.

Metal framework and reamer.

Use the reamer to eliminate the “Lip” created by the "snap-on" mechanism.

Metal Framework after the removal of the "Lip".

Metal framework.

Porcelain build-up.

**SCRP :** Once an access hole has been created, it could be converted to a SCRP (Screw & Cemented Retained Prosthesis).

Final prosthesis.

Create an access hole when the burn-out cylinder is used for the wax-up.

Image of the extended margin around the metal framework.

Shave off of the extended margin by using the rubber wheel.

Metal framework and reamer.

Use the reamer to eliminate the “Lip” created by the "snap-on" mechanism.

Metal framework after the removal of the "Lip".

Metal framework.

Final prosthesis.

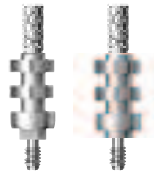
# Prosthetic Procedure 2

Impression Technique and Restoration Selection

## Dual / SCA / Dual Milling / Angled / Direct-Casting / Metal-Casting / Temporary Abutment

### Fixture Level Impression

Octa Non-octa



**Impression Coping / Pick-up**
**Open** tray technique (Complicated case)
Ø4.8 / Ø6.5

Octa Non-octa

**Impression Coping / Transfer**
**Closed** tray technique (Simple case)
Ø4.8 / Ø6.5

**Analog**
Ø4.8 / Ø6.5

**Dual Abutment**
Octa
Ø4.8 / Ø6.5

**SCA Abutment**
Octa / Non-octa
Ø4.8 / Ø6.5

**Dual Milling Abutment**
Octa
Ø4.8 / Ø6.5 / Ø7.5

**Angled Abutment**
Octa
15° / 25°
Ø4.8 / Ø6.5

**Direct-Casting Abutment**
Octa / Non-octa
Ø4.8 / Ø6.5

**Metal-Casting Abutment**
Octa / Non-octa
Ø4.8 / Ø6.5

**Temporary Abutment**
Octa / Non-octa
Ti / Plastic
Ø4.8 / Ø6.5

**Modification**

**Cemented Restoration**

**Modification**

**Screw-Retained Restoration**

# Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]

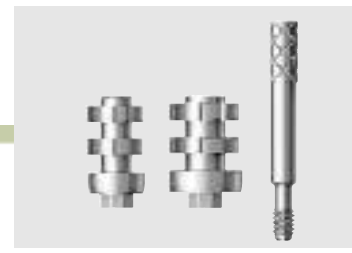
## Clinical Procedure

Healing Abutment

Impression Coping
Pick-up Type

Fixture Level Impression
Open Tray

### Chairside

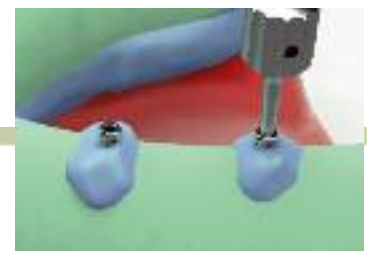


Pick-up type impression coping (Octa).

Apply adhesive on the open tray. (Individual tray)

Apply the impression material.

Take the impression.



Remove the screw before removing the impression tray.

Image of the set final impression with impression coping.

# Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]

## Laboratory Procedure

| Lab Analog Connection | Assemble the Dual Abutment | Burn-out Cylinder cutting for height adjustment | Crown Wax-up | Final Restoration Cementation Type |
|---|---|---|---|---|

### Lab Side

Connect analogs with the embedded impression coping.

Soft tissue modeling.

Create the master model.

Assemble the dual abutment.

If deemed necessary, abutment milling is possible.

Fabricate the positioning jig

Fabricate the cap with pattern resin.

Completion of wax-up.

Metal framework.

# Fixture Level [Pick-up Type]- Dual Abutment

[Multiple Units]

## Chairside

Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intraoral and then tighten it with 25~30N·cm.
Re-tighten it after 15 minutes.

Cement the final prosthesis and make occlusal adjustment.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

## SCRP- Lab Side

Create an access hole for pick-up coping screw.

Completion of Wax-up.

Metal framework.

## SCRP- Chairside

Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intraoral and tighten with to 25~30N·cm.
Re-tighten it after 15 minutes.

Cement the final prosthesis and make occlusal adjustment.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

# Fixture Level [Transfer Type]- Dual Abutment

[Multiple Units]

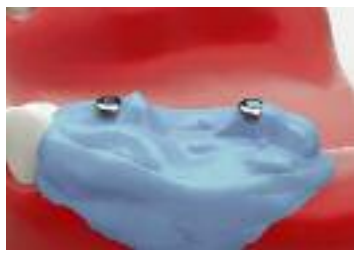
## Clinical Procedure

| Healing Abutment | Impression Coping<br>Transfer Type | Fixture Level Impression<br>Closed Tray |
|---|---|---|

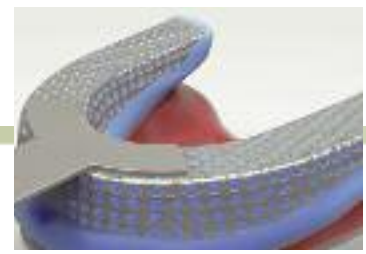
### Chairside

Transfer type impression coping (Octa).

Connect the impression coping for fixture level impression.



Apply the impression material.



Take the impression.

Image of the set final impression with impression coping.

# Fixture Level [Transfer Type]- Dual Abutment

[Multiple Units]

## Laboratory Procedure

Lab Analog Connection | Assemble the Dual Abutment | Burn-out Cylinder cutting for height adjustment | Crown Wax-up | Final Restoration Cementation Type

### Lab Side

Impression coping and analog connection. And insert impression coping into the impression.

Make sure the analogs are securely seated in the impression coping (line up the flat side of analog to the flat side of the coping).

Soft tissue modeling.

Create the master model.

Examine the soft tissue condition after the retrieval of the impression coping.

Assemble the dual abutment.

If deemed necessary, abutment milling is possible.

Fabricate the positioning jig.

Fabricate the cap with pattern resin.

# Fixture Level [Transfer Type]- Dual Abutment

[Multiple Units]

Completion of wax-up.

Metal framework.

Final prosthesis build-up on the framework with porcelain.

## Chairside

Use the positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm. Re-tighten after 15 minutes.

Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

## SCRP- Lab Side

Create an access hole for the pick-up coping screw.

Completion of Wax-up.

Metal framework.

## SCRP- Chairside

Final prosthesis.

Use positioning jig to transfer abutment from the model to the intraoral and tighten it with 25~30N·cm. Re-tighten after 15 minutes.

Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

# Fixture Level- SCA Abutment

[Multiple Units]

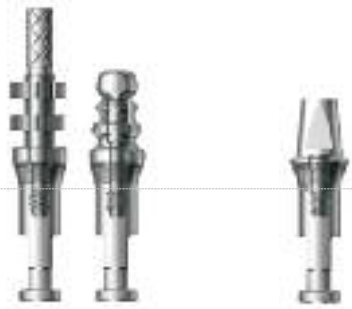
## Clinical Procedure

Healing Abutment

Fixture Level Impression
Pick-up Type
Open Tray

Fixture Level Impression
Transfer Type
Closed Tray

## Laboratory Procedure



Lab Analog Connection



Assemble the SCA Abutment

Burn-out Cylinder cutting for height adjustment

Crown Wax-up

Final Restoration Cementation Type

## Lab Side

Connect analogs with the embedded impression coping.

Soft tissue modeling.

Create the master model.

# Fixture Level- SCA Abutment

[Multiple Units]

Assemble the SCA abutment.

If deemed necessary, abutment milling is possible.

Fabricate the positioning jig

Fabricate the cap with pattern resin

Completion of wax-up.

Metal framework.

## Chairside

Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm.
Re-tighten it after 15 minutes.

Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

## SCRP- Lab Side

Create an access hole for pick-up coping screw

Completion of wax-up.

Metal framework.

## SCRP-Chairside

Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm.
Re-tighten it after 15 minutes.

Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

# Fixture Level- Dual Milling Abutment

[Single Unit]

## Clinical Procedure

Healing Abutment

Fixture Level Impression
Pick-up Type
Open Tray

Fixture Level Impression
Transfer Type
Closed Tray

## Laboratory Procedure

Lab Analog Connection

Dual Milling Abutment Connection

Modification

Crown Wax-up

Final Restoration Cementation Type

### Lab Side

Connect analogs with the set impression material.

Soft tissue modeling.

Create the master model.

# Fixture Level- Dual Milling Abutment

[Single Unit]

Assemble the dual milling abutment.

Milled the abutment to an appropriate size.

Fabricate the positioning jig

Fabricate the cap with pattern resin.

Completion of wax-up.

Metal framework.

Chairside

Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm.
Re-tighten it after 15 minutes.

Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

* In the process of seating the prosthesis, the components can be rebounded by gingival tissue. In that case, it is advised to apply occlusal load on the prosthesis for 10~15 minutes.

# Fixture Level- Angled Abutment

[Single Unit]

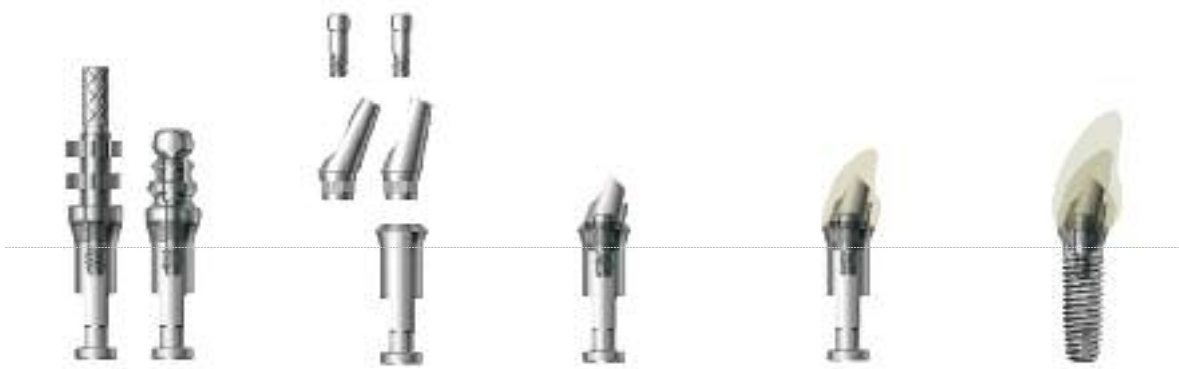
## Clinical Procedure

Healing Abutment

Fixture Level Impression
Pick-up Type
Open Tray

Fixture Level Impression
Transfer Type
Closed Tray

## Laboratory Procedure



Lab Analog Connection

Angled Abutment Connection

Modification

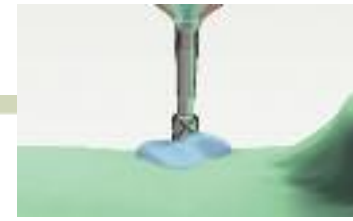
Crown Wax-up

Final Restoration Cementation Type

### Lab Side

Impression coping with analog connections.

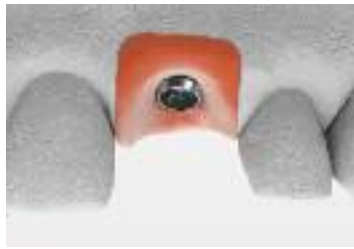
Soft tissue formation and fabrication of master model.



Unscrew and separate the impression from the model.

# Fixture Level- Angled Abutment

[Single Unit]



Create the master model.

Assemble the angled abutment.

Milled the abutment to an appropriate size and fabricate the positioning jig.

Fabricate the cap with pattern resin.

Completion of wax-up.

Metal or zirconia framework.

Chairside

Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intraoral and tighten it with 25~30N·cm. Re-tighten it after 15 minutes.

Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

# Fixture Level- Direct-Casting Abutment

[Single Unit]

## Clinical Procedure

Healing Abutment

Fixture Level Impression
Pick-up Type
Open Tray

Fixture Level Impression
Transfer Type
Closed Tray

## Laboratory Procedure

Lab Analog Connection

Direct-Casting Abutment Connection

Modification

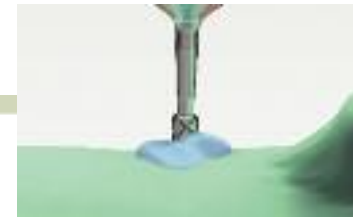
Crown Wax-up

Final Restoration Cementation Type

### Lab Side

Impression coping with analog connections.

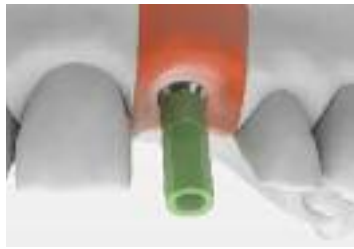
Soft tissue formation and fabrication of master model.



Unscrew and separate the impression from the model.

# Fixture Level- Direct-Casting Abutment

[Single Unit]



Assemble the direct casting abutment.

Completed customized abutment.

Fabricate the positioning jig.

Fabrication of pattern resin cap

Completion of wax-up.

Metal or zirconia framework.

Chairside

---Final prosthesis.

Use positioning jig to transfer the abutment from the model to the intraral and tighten it with 25~30N·cm. Re-tighten it after 15 minutes.

Cement the final prosthesis and make occlusal adjustment. Place wax into the opening of the abutment to protect the screw head prior to the composite sealing.

# Fixture Level- Temporary Abutment

[Multiple Units]

Ti-Temporary Abutment

Plastic Temporary Abutment

<Using Ti Abutment>

Consider the opposing teeth before seating the temporary abutment. Trim off the abutment as needed and complete the temporary abutment prosthesis with direct resin.

<Using Plastic Abutment>

# Prosthetic Procedure 3

Impression Technique and Restoration Selection

## Screw Abutment

### Abutment Level Impression

**Screw Abutment**

Ø4.8 / Ø6.5

**Closed**
Tray Technique

**Impression Coping Transfer**
Hex / Non-hex Ø4.8 / Ø6.5

**Open**
Tray Technique

**Impression Coping Pick-up**
Hex / Non-hex Ø4.8 / Ø6.5

**Analog**
Ø4.8 / Ø6.5

**Burn-out Cylinder**
Ø4.8 / Ø6.5

**Gold Cylinder**
Ø4.8 / Ø6.5

**Metal Cylinder**
Ø4.8 / Ø6.5

**Titanium Cylinder**
Ø4.8 / Ø6.5

Bridge (Non-hex) | Single (Hex) | Bridge (Non-hex) | Single (Hex) | Bridge (Non-hex) | Single (Hex) | Bridge (Non-hex) | Single (Hex)

**Polishing Protector**
Ø4.8 / Ø6.5

**Temporary Restoration**

**Ti-Retaining Screw**

**Screw-Retained Restoration**

# Abutment Level- Screw Abutment

[Multiple Units]

## Clinical Procedure

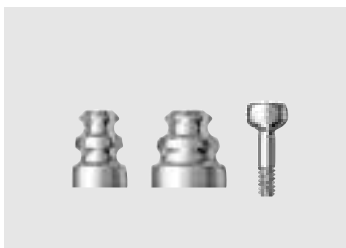
| Healing Abutment | Screw Abutment | Impression Coping Transfer Type | Abutment Level Impression |
|---|---|---|---|

### Chairside

Screw abutment and delivery holder.

Select and seat an appropriate screw abutment with delivery holder.

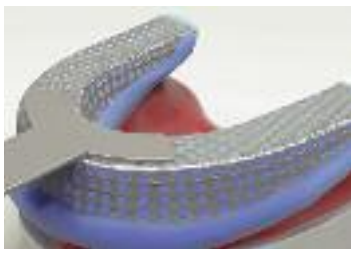
Tighten it with 25~30N·cm. Re-tighten it after 15 minutes with screw abutment adapter.



Screw abutment transfer copings (abutment level).

Connect the impression coping for abutment level impression.

Apply the impression material.



Take the impression.

Image of the set final impression with impression coping.

Place comfort cap over the screw abutment.

# Abutment Level- Screw Abutment

[Multiple Units]

## Laboratory Procedure

| Lab Analog Connection | Cylinder Connection | Modification | Crown Wax-up | Final Restoration Screw Retained |
|---|---|---|---|---|

### Lab Side

Insert analogs into the set impression.

Make sure the analogs are securely seated in the impression coping (line up the flat side of analog to the flat side of the coping).

Soft tissue modeling.

Create the master model.

Remove the impression coping.

Connect the screw abutment cylinder and tighten it with Ti-retaining screw.

Trim cylinder after measuring proper height based on the proximity of the opposing teeth..

Connect the plastic bar in the middle of trimmed burn-out cylinders to help support the wax pattern. Wax pattern may experience shrinkages.

Completion of wax-up.

# Abutment Level- Screw Abutment

[Multiple Units]

Gold framework.

Use the reamer to remove the "Lip" in the interior of the metal framework.

Completion of gold framework.

Final prosthesis.

Insert the final prosthesis and make necessary occlusal adjustments. Tighten it with ti-retaining screw (10 N·cm).

# Cementation Repair Method (SCRP)

[Screw & Cement Retained Prosthesis]

## In light of Implant Prosthesis:

- Screw type restoration simplifies prosthetic repair or insertion and removal of the prosthesis to any given situation.
- Cement type restoration tend to have a stable occlusion and may enhance the adaptability. However the weak point is, it cannot be removed after permanent cementation.
- A SCA abutment can be cemented or screw retained.
- Solid abutments are cement retained and no occlusal hole is necessary.

## Screw Loosening or Prosthesis Repair

In case of the following: screw loosening or prosthesis repair

In order to unscrew, create access hole on the occlusal surface with a bur.

Unscrew, and remove the prosthesis from the patient's mouth.

Both cemented prosthesis and abutments are removed.

Finish the repair and seat it inside the patient's mouth.

Tighten the prosthesis with 25~30N·cm with a screw driver

* It is recommended that the abutment screw is retightened after 15 minutes.

Place a small piece of cotton to cover the head of the screw.

Fill the remaining access space with a resin.

Final prosthesis.

# Cementation Repair Method (SCRP)

[Screw & Cement Retained Prosthesis]

## Separation of Prosthesis with Abutment due to Cement Loss

Remove the screw completely with screw driver and remove prosthesis from the patient's mouth.

Apply cement to the prosthesis.

Place it back into the patient's mouth.

* In case of screw abutment connection, Ti-Retain screw has to be tightened with) 10N·cm.

Unscrew and remove the excessive cement.

Finish the repair and seat it inside the patient's mouth.

Tighten the prosthesis with 25~30N·cm with a screw driver.

## Augmenting Interproximal Volume to Repair Prosthesis Loosening

Adding volume to the interproximal surface to repair loosening.

Create access hole on the occlusal surface with a bur.

Unscrew and remove the cemented prosthesis with abutment from the patient's mouth.

Add resin to the prepared space on the contact surface.

Screw back in the prosthesis and perform light curing. Aftermath, polish the contact surface.

Position the prosthesis in the mouth and tighten the screw with 25~30N·cm. Fill in the access hole.

# Prosthetic Procedure 4

Impression Technique and Restoration Type

## Overdenture Procedure

### Positoner / Mini Ball / Magnetic Attachment

**Positioner**
Ø4.8

**Mini Ball Abutment**
Ø4.8 / Ø6.5

**Implant Keeper**
Ø4.8 / Ø6.5

**Abutment Level Impression**

**Positioner Impression Coping**

**Mini Ball Impression Coping**

**Positioner Analog**

**Mini Ball Analog**

**Positioner Block Out Spacer**

**Socket Spacer**

**Magnetic Assay**

**Positioner Metal Socket / Plastic Socket**

**Mini Denture Socket and O-ring**

**Positioner Attachment for Overdenture**

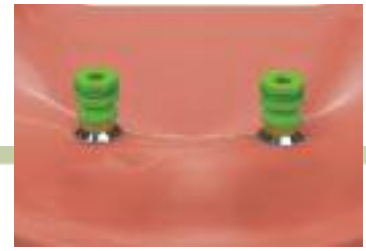
**Mini Ball and Socket Attachment for Overdenture**

**Magnetic Attachment for Overdenture**

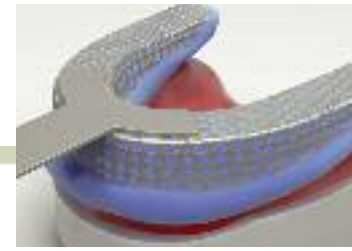
# Positioner

## Chairside

Connect the Positioner Abutment onto the fixture.

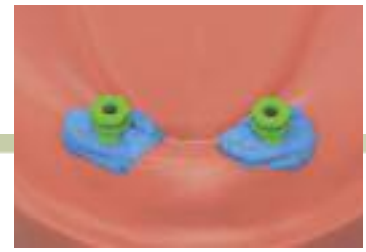


Affix the impression coping on the Positioner Abutment.



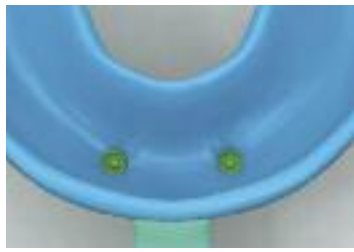
Take impression for the production of the individual tray.

Produce the individual tray for denture impression.



After connecting the Positioner Abutment and the impression coping together, apply the impression material.

Take the final impression with the prepared individual tray.



After the impression material is set, discard the individual tray.

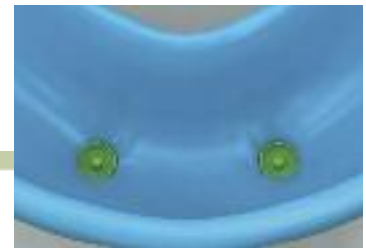
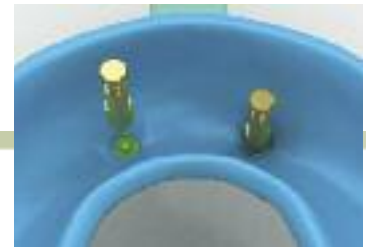


Image of the set final impression (with impression coping).

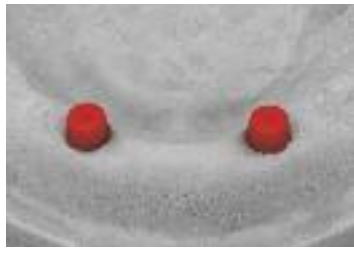
## Lab side

Positioner Analog.



Insert the Positioner Analog into the embedded impression coping.

Create the master model.



“Block out” procedure to achieve the space required for the metal socket.

Fabrication of the denture with conventional method

# Positioner

## Case 1

Chairside

Secure spaces for the female sockets.

Place the “block out spacer” on the Positioner Abutment in the patient’s mouth.

Connect the metal socket onto the Positioner Abutment.

Apply a small amount of resin into the space created for the metal socket.

Position the denture in the mouth and wait until the resin is completely set.

Remove the white plastic socket (100gf) using the positioner tool and replace with a regular plastic socket of a desired retention force (300, 500 or 1000gf).

Remove the denture after the resin is fully set. Image of the denture with the metal socket.

Remove the block out spacer from the patient’s mouth.

Polish and the overdenture is complete.

## Case 2

Chairside

Create holes for the placement of the metal sockets.

Place the “block out spacer” on the Positioner Abutment in the intraoral.

Connect the metal socket onto the Positioner Abutment.

Examine for interference between the inner surface of the holes and the female sockets.

Apply the resin into the holes and wait until it is completely set.

Remove the white plastic socket (100gf) using the positioner tool and replace with a regular plastic socket of a desired retention force (300, 500 or 1000gf).

Apply additional resin around the metal socket where there is a shortage of resin.

Apply resin around the metal socket.

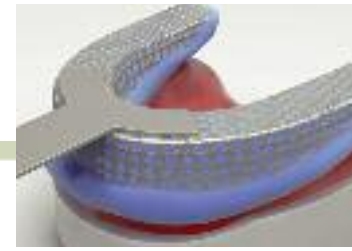
Polish and the overdenture is complete.

# Ball Attachment

## Chairside

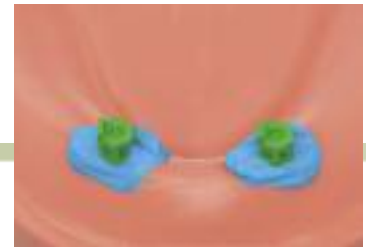
Connect the Ball Abutment with the fixture.

Affix the impression coping on the Ball Abutment.



Take impression for the production of the individual tray.

Produce the individual tray for denture impression.



Apply the impression material.

Take the final impression with the prepared individual tray.

After the impression material is set, discard the individual tray.

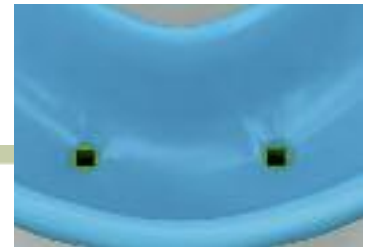


Image of the set final impression (with impression coping).

## Lab side

Ball Analog.

Insert the analogs into the embedded impression coping.

Create the master model.

Socket spacer.

Fabrication of the denture with conventional method.

# Ball Attachment

## Case 1

### Chairside

Secure spaces for the female sockets.

Connect the female sockets to the Ball Abutment in the intraoral.

Apply small amount of the resin into the secured area.

Position the denture in the mouth and wait until the resin is completely set.

Female sockets are placed in the denture.

Polish and the overdenture is complete.

## Case 2

### Chairside

Create holes for the placement of the female sockets.

Connect the female sockets to the Ball Abutment in the intraoral.

Examine for interference between the inner surface of the holes and the female sockets.

Apply the resin into the holes and wait until it is completely set.

Place the female sockets.

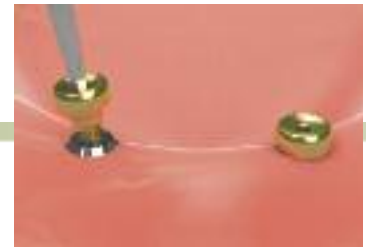
Apply resin around the female sockets.

Polish and the overdenture is complete.

# Magnetic Attachment

## Chairside

Remove the Healing Abutment.



Connect implant keeper with the fixture and tighten it with 25~30 N·cm.

Implant keepers connected with the fixtures.

Position the magnetic assay on the implant keeper.

Secure spaces for the magnetic assays.

Examine for interference between inner divets of the denture and the magnets.

## Case 1

Apply resin on the divets of the denture's inner surface.

Position the denture into the mouth and wait until the resin is completely set.

Position the denture into the mouth and wait for initial setting.

Remove the denture and apply resin around the magnets.

After the resin is completely set, remove excess. Polish and the overdenture is complete.

# Magnetic Attachment

## Case 2

Create holes for the placement of the magnets.

Examine for interference between the inner surface of the holes and the magnets.

Apply small amount of resin into the hole.

Position the denture in the mouth and wait until the resin is completely set.

After initial setting, remove denture from the mouth.

Add the resin around the magnets.

Polish and the overdenture is complete.

Dentium
For Dentists By Dentists

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# SimpleLine II

## Surgical / Prosthesis Manual

Dentium
For Dentists By Dentists

Specifications are subject to change without notice.
Some products listed in this catalog are not available in the market due to pending approval.

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